

Summary Description of BEF's Green Tag Product¹

February 22, 2001

In a green tag sale, the power from the new renewable energy facility is not physically delivered to the customer, but the environmental benefits created by the facility are attributed to that customer, directly offsetting the environmental impact of the customer's conventional energy use.

Concept

BEF's "green tag" or "green certificate" is based on the premise that there are at least two distinct products produced by a renewable energy facility.

The first is electricity. How the electricity is treated in a green tag transaction will be discussed shortly.

The second is a package of environmental benefits created by displacing the output from conventional, polluting power plants with the output from a new, non-polluting renewable power plant. These environmental benefits can be "stripped" away from the electrical power, quantified (e.g. 150 tons of CO₂ displaced) and packaged into a green tag. The green tag then represents those collective environmental benefits.

For example, a 1 megawatt (MW) wind energy plant that generates and delivers to the power grid 3,000 megawatt hours (MWh) of electricity annually, would create no air pollution. An average fossil fuel facility generating the same number of MWhs would create approximately 2,100 tons of CO₂, 11 tons of SO_x, 7 tons of NO_x, and varying amounts of CO, mercury, particulates and other pollutants. The green tags capture this difference to the extent allowed by law.²

Green tags can also be packaged to meet the requirements of renewable portfolio standards or other legislative or regulatory mandates.

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² Pollution control laws may fail to credit producers of clean electricity for emissions reductions. Nonetheless, BEF believes there is great value in replacing polluting facilities over time with non-polluting facilities like wind turbines.

The electricity generated by the project is sold separately from the green tag, as generic power. No environmental claims can be made for this energy because the green tag now represents the entire package of environmental benefits associated with the generation of the electricity. The distinction between the two products is created by enforceable contractual agreements.

Green Power vs. Green Tags

In a *green power* transaction, a customer purchases the electricity and its green attributes together, in a single transaction, generally from the same seller (a utility, a power marketer, or another trading mechanism.)

In a *green tag* transaction, the customer continues to purchase electricity from its existing supplier, but purchases green tags in a separate transaction and usually from a different seller (in this case BEF; see the diagrams below.)

"Delivery" of Green Power

Traditional green power and green pricing programs often (and unintentionally) leave customers with the impression that the electrons being generated by a renewable energy facility are being delivered directly to their homes or businesses. This is not the case unless the renewable energy facility is directly attached to the customer's building (and is on the customer's side of the meter). The electrons from any grid-connected generating facility simply mix with the rest of the electrons in the grid, and each customer gets a generic, average mix of all the resources generated on the grid. (See the diagrams below).

Thus in neither green power nor green tag transactions is the customer paying for actual delivery of renewable energy to its facility. Instead, it is the *environmental benefits*³ of new renewable resources being delivered to the grid, displacing older polluting plants, that the customer truly values, and is willing to pay for.

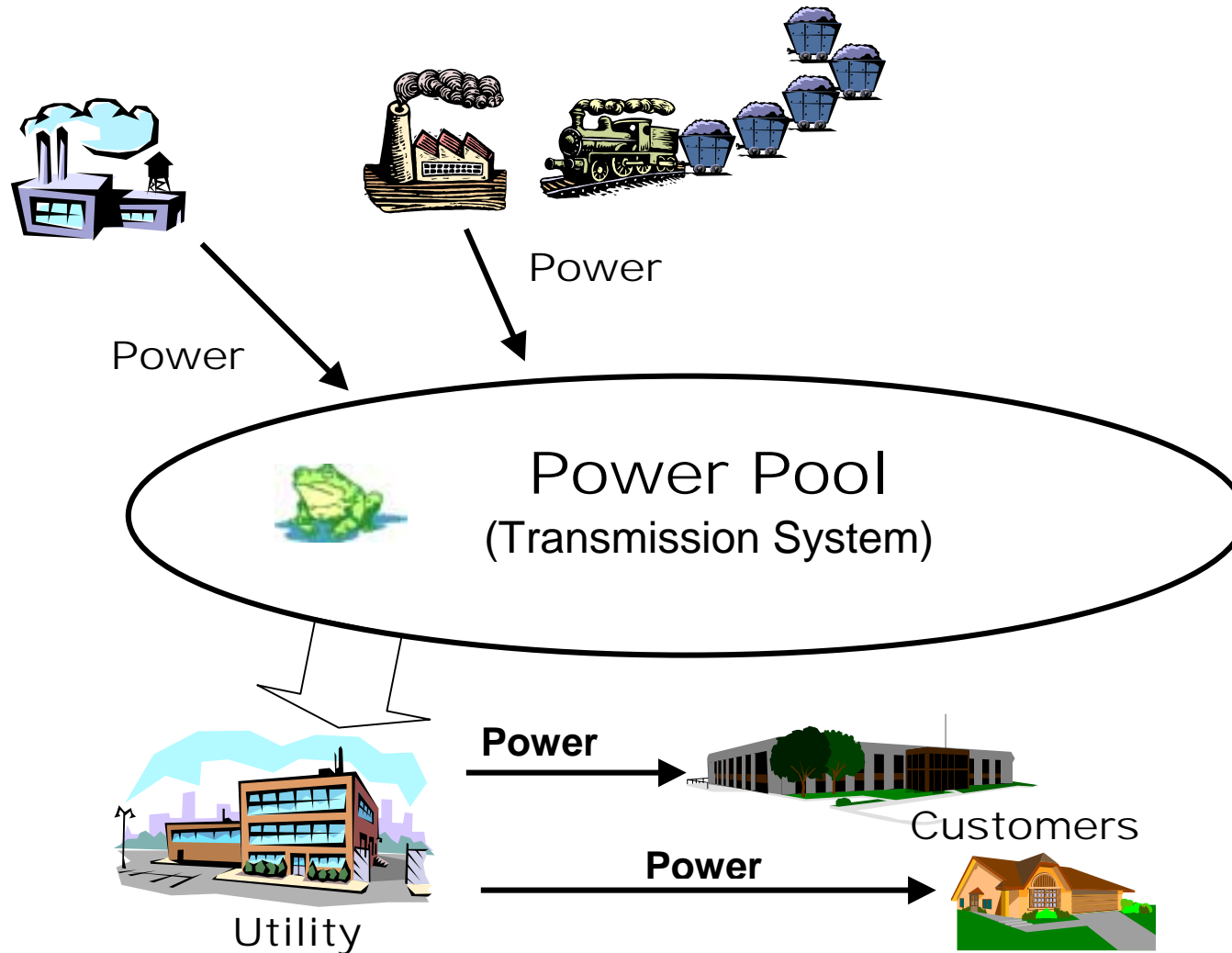
Advantages of Green Tags

Among the advantages to a customer of offsetting his facility's energy use with green tags are:

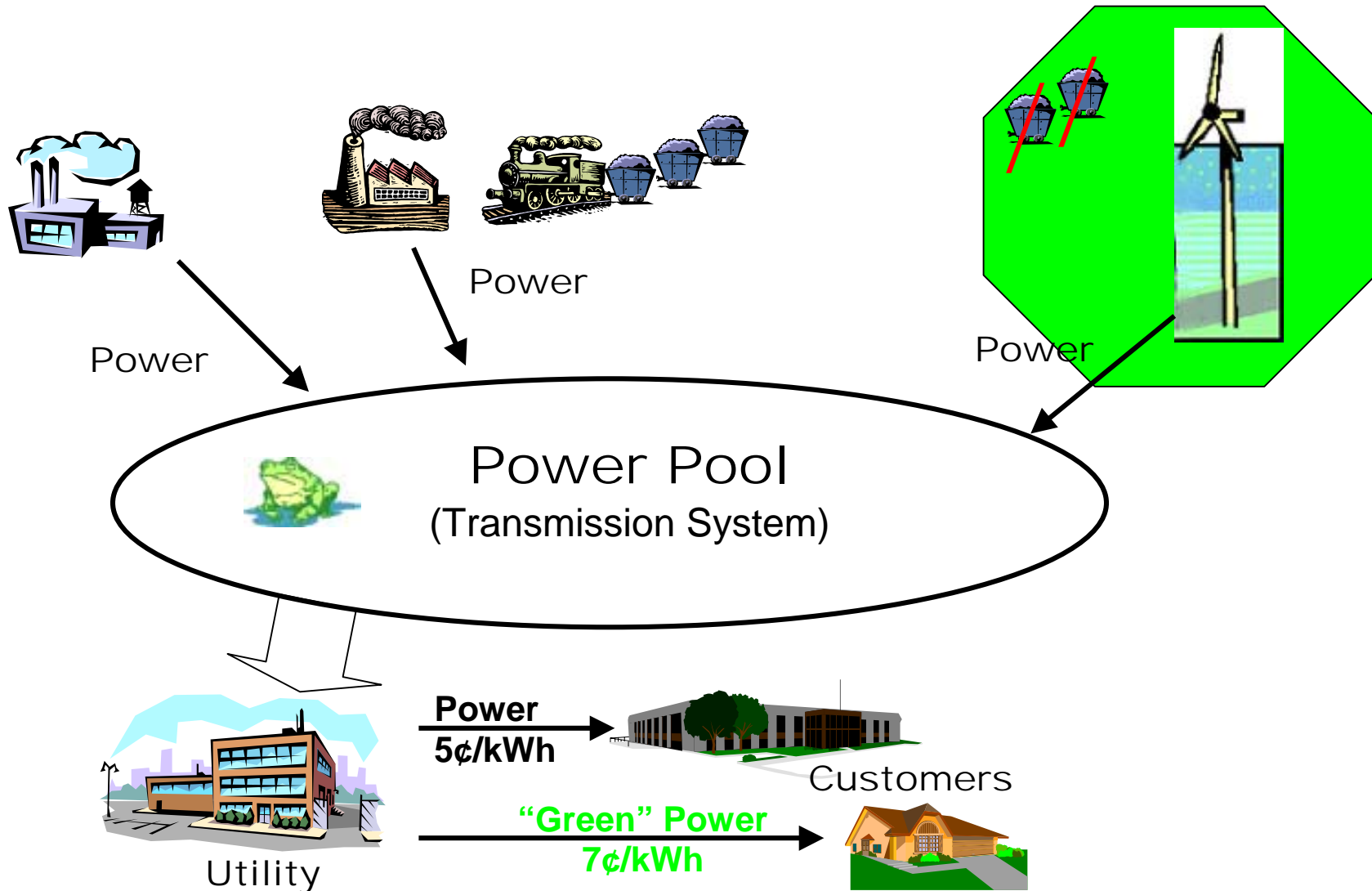
- Electrical usage in multiple facilities located in different utility service territories can be offset in a single transaction, lowering costs.
- There may be lower transmission costs since only the green tags are delivered to the customer, while the power flows to the nearest load on the grid.
- Green tags can be purchased for any facility regardless of whether it is located in an area that has deregulated electricity markets (e.g., Pennsylvania) or not (e.g., Washington).

³ Offsets of CO₂ and other polluting emissions.

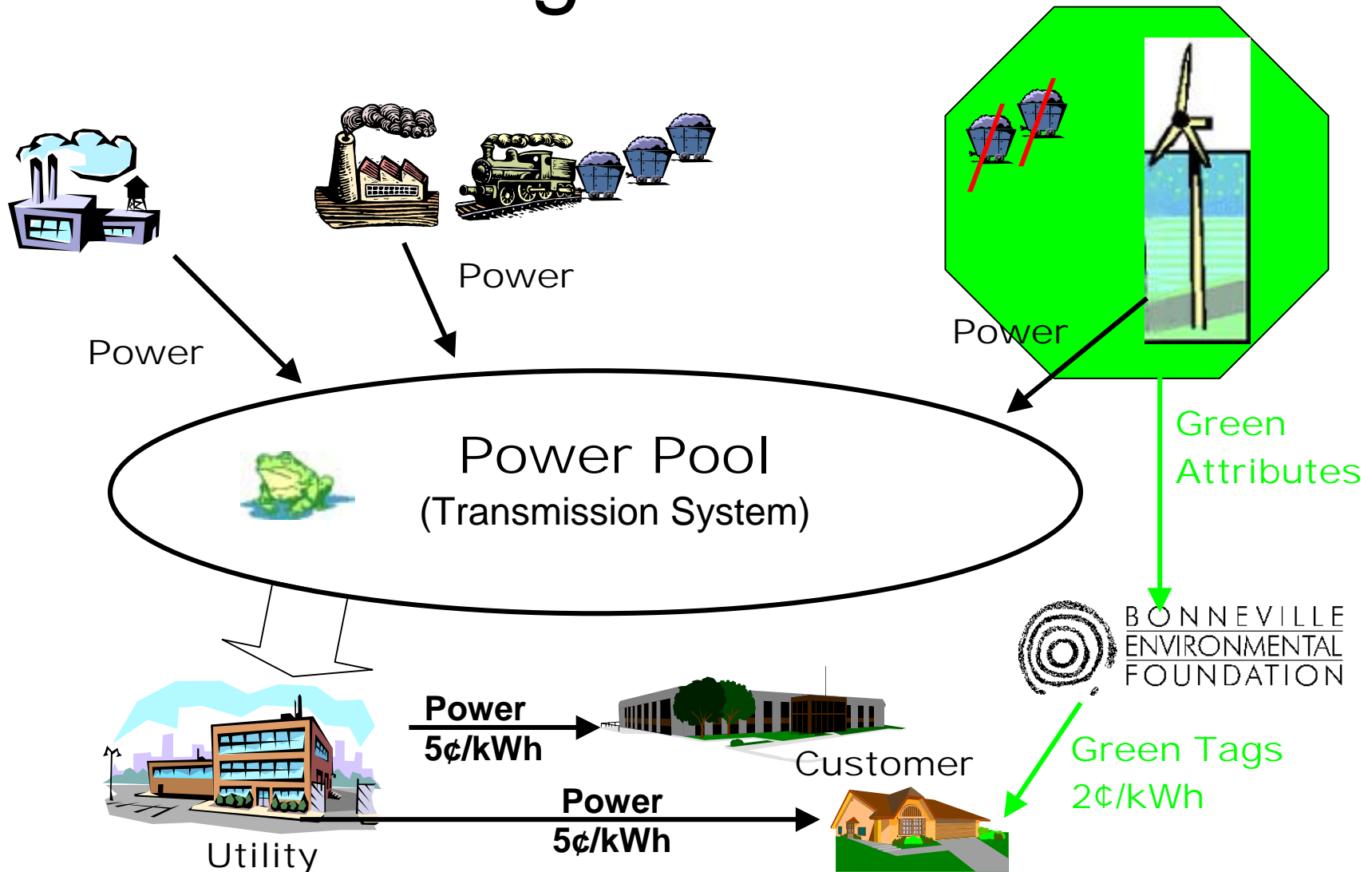
Traditional Power Transaction



Green Power Transaction



Green Tag Transaction



Green Power vs. Green Tag

Green Power	Green Tag
<ul style="list-style-type: none">• Purchase from utility or power marketer	<ul style="list-style-type: none">• Purchased from BEF
<ul style="list-style-type: none">• Only available in some regions	<ul style="list-style-type: none">• Available anywhere
<ul style="list-style-type: none">• Multiple transactions	<ul style="list-style-type: none">• One transaction
<ul style="list-style-type: none">• Premium = 2 - 5¢/kWh	<ul style="list-style-type: none">• Premium = 1.1 - 3¢/kWh
<ul style="list-style-type: none">• Green premium MAY go to new renewables	<ul style="list-style-type: none">• BEF green tag premium DOES go to new renewables
<ul style="list-style-type: none">• Energy and green attributes paid on same bill	<ul style="list-style-type: none">• Energy bill unchanged. Green premium paid to BEF
<ul style="list-style-type: none">• Reliability and power quality do not change	<ul style="list-style-type: none">• Reliability and power quality do not change

New vs. Existing

BEF's green tag product represents the environmental benefits associated with new renewable energy facilities. The majority of the green power currently being sold in the United States is from existing renewable energy facilities, and hence simply churns existing resources, generating no additional environmental value. The revenues from BEF's green tag sales go directly to the generation of energy from new renewable energy facilities.

What is BEF?

BEF was founded in 1998 to generate revenue from the sale of environmentally endorsed "green power" to utilities, government agencies, and businesses. The Foundation uses the net revenues from these sales to fund new renewable energy resources and watershed restoration projects in the Pacific Northwest.

Working with BPA and other suppliers, and with supporting environmental groups, BEF has completed transactions involving the sale of some 23 average Megawatts (23,000 kilowatts) of green power since its inception in 1998. In its first 18 months, BEF has generated more than \$2.5 million in net revenues, and made these funds available for new projects. In May 2000 BEF announced its first green tag sale, to the Environmental Protection Agency (Region 10.) The CO2 emissions and other environmental effects of some 25% of EPA 's regional electricity use will be offset with BEF green tags.

Environmental Endorsement

All of BEF's green power and green tags are reviewed and endorsed by three leading environmental organizations, each of which is actively involved in energy issues -- The Natural Resources Defense Council, the Renewable Northwest Project, and the Northwest Energy Coalition.

For additional information on the Bonneville Environmental Foundation and its green tag product, please contact:

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